Ambient Temperature Sensor

Model: BKC –AT RS485-MB



Product Overview:

The **BKC–AT RS485-MB** is an industrial-grade, high-accuracy ambient temperature sensor, designed for precise and reliable monitoring in indoor environments.
It utilizes a Pt1000 RTD sensor element, enclosed in a self-adhesive aluminium block, and communicates via RS-485 (Modbus RTU) protocol, ensuring stable, long-distance, and noise-resistant data transmission. Our ambient temperature sensors are equipped with a sturdy aluminium housing and robust, weatherproof cabling .

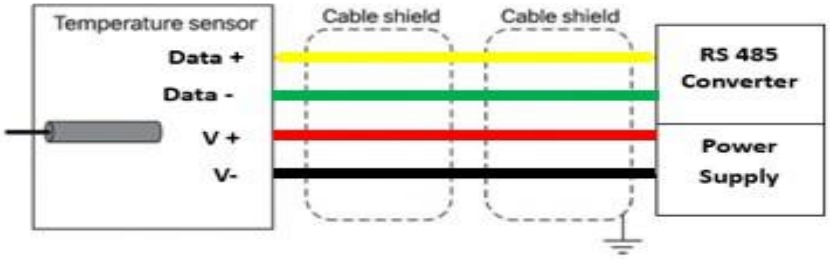
This sensor is ideal for integration into SCADA systems, data loggers, and industrial automation.

Technical Specifications:

Parameter	Details
Model	BKC–AT RS485-MB
Interface	RS-485 (Modbus RTU Protocol)
Sensor Element	Pt1000, RTD (Resistance Temperature Detector)
Accuracy	Class A
Connection Type	3-wire
Sensor Housing	Aluminium,6mm OD × 35mm length
Sensor Mount	Self-adhesive aluminium block (30×12×6 mm)
Sensor Cable	3 meters, Teflon-coated
Operating Temperature Range	-50°C to 150°C
Sensor Element Range	-30°C to 600°C (Calibrated with Fluke 9144 + Fluke 724)
Power Supply Voltage	5 VDC to 24VDC
Enclosure Material	Powder-coated aluminium
Enclosure Size	80 mm × 75 mm × 57 mm
Protection Level	IP67 (Water and dust resistant)

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Wiring Diagram:



BKC AT RS485-MB

RS-485 Communication:

- **Yellow Wire** → RS-485 D (+)
- **Green Wire** → RS-485 D (−)

Power Supply:

- **Red Wire (V^+)** → Connect to the **positive terminal** of the DC power supply
- **Black Wire (V^-)** → Connect to the **negative terminal (GND)** of the power supply

Note: The sensor operates on a DC supply voltage ranging from **5 VDC to 24VDC**

Factory Default Communication Settings (Modbus RTU):

Parameter	Default Value
Modbus Address	1
Baud Rate	9600
Data Bits	8
Parity	None
Stop Bit	1
Register Address	Holding Register (40001)

NOTE: if the data of MSB is Zero then Temperature value = Data/ 10
Otherwise ,
Temperature Value = (Data – FFFA)/10

Safety Instructions

- Installation must be done by electrically qualified person**.**

Warranty

- **1-year standard warranty.**

ISO 9001:2015

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